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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,355	12/16/2003	Brent R. Jones	D/A3075	6010

25453 7590 05/18/2006

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EXAMINER

LIANG, LEONARD S

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/737,355

Applicant(s)

JONES, BRENT R.

Examiner

Leonard S. Liang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-10, 12-24, 26 and 27 is/are rejected.
- 7) ☒ Claim(s) 5, 11 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification and Drawings

The examiner thanks the applicant for the amendments to the specification and drawings. With respect to the applicant's arguments concerning the use of "A-D", the examiner made the objections to clarify the record because what is clear to the applicant may not be clear to one of ordinary skill in the art. Now that the record is clear, the examiner will leave it to the applicant's discretion whether to use "A-D."

Claim Objections

The examiner previously stated, "Claims 23-24 are objected to because of the following informalities: They are dependent upon themselves. It will be construed that claims 23 and 24 should depend on independent claim 16. Appropriate correction is required." The applicant has fixed this problem, but the examiner sees a new problem. Claim 16 is directed to an ink loader. Claims 23-24 are still directed to a drip plate. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 6-8, 12-19, 22-23, and 26-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Jones et al (US Pat 6530655).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Jones et al discloses:

- {claim 1} A drip plate for use in a phase change ink jet printer using solid ink, comprising: an upper portion; and a lower pointed portion, wherein the lower portion is not coplanar with the upper portion (figure 4; column 6, lines 65-67)

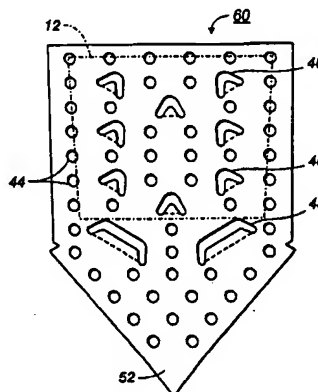


FIG. 4

- {claim 2} wherein a heating element is bonded to a first side of the upper portion (figure 3, reference 29A-D)

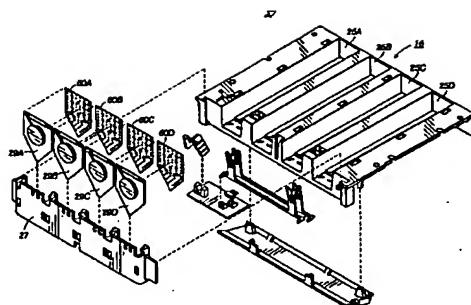


FIG. 3

- {claim 3} wherein the heating element is a closed loop heater (figure 3, reference 29A-D)
- {claim 6} wherein the drip plate is made from metal (column 7, lines 16-17)
- {claim 7} wherein the drip plate is made from a nonferrous metal (column 7, lines 16-17)
- {claim 8} wherein the drip plate is made from aluminum (column 7, lines 16-17)
- {claim 12} at least one anchor tab extending from the second side of the drip plate located near the center of the plate (figure 4, reference 46)
- {claim 13} wherein the anchor tabs are arranged in pairs and wherein each pair is arranged substantially symmetrically about a vertical center line (figure 4, reference 46)
- {claim 14} a silver strainer located near a lower edge of the drip plate (figure 4, reference 48)
- {claim 15} An ink loader (figure 3)
- {claim 16} An ink loader for a phase change ink printer (figure 3), comprising: at least one channel having an entry end and an exit end (figure 3, reference 25A-D); a melt assembly, which includes a drip plate including an upper portion

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having substantially flat upper first and second sides, and a lower portion having substantially flat lower first and second sides, wherein the lower portion is not coplanar with the upper portion (figure 3, reference 60A-D; column 6, lines 65-67); a melt plate fastened to the upper second side of the drip plate; and a heating device thermally connected to one of the melt plate and the drip plate (figure 3, reference 29A-D)

- {claim 17} further comprising an adapter to position the assembly relative to the at least one channel (figure 3, reference 27)
- {claim 18} wherein at least one of the drip plate and the melt plate is made from nonferrous metal (column 7, lines 16-17)
- {claim 19} wherein at least one of the drip plate and the melt plate is made from aluminum (column 7, lines 16-17)
- {claim 22} wherein the heating element is bonded to the first side of the upper portion of the drip plate (figure 3, reference 29A-D; broad interpretation used of heating element being bonded to drip plate through melt plate)
- {claim 23} wherein the heating element is a closed loop heater (figure 3, reference 29A-D)
- {claim 26} wherein the melt plate includes at least one anchor tab extending from the second side of the drip plate (figure 4, reference 46)
- {claim 27} wherein the melt plate includes a silver strainer located near a lower portion of the drip plate (figure 4, reference 48)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al (US Pat 6530655) in view of Alavizadeh et al (US Pat 5424767).

Jones et al discloses, with respect to claims 4 and 24, a drip plate and an ink loader for a phase change printer (as applied to claims 1-3, 6-8, 12-19, 23, and 26-27 above).

Jones et al differs from the claimed invention in that it does not disclose that the heating element includes a foil heater encapsulated in a thin electrically insulative film.

Alavizadeh et al discloses, with respect to claims 4 and 24, a heating element, which includes a foil heater encapsulated in a thin electrically insulative film (column 2, lines 19-26).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Alavizadeh et al into the invention of Jones et al. The motivation for the skilled artisan in doing so is to gain the benefit of improved heating of ink.

Claims 9 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al (US Pat 6530655) in view of Scheuving (US Pat 5832835).

Jones et al discloses, with respect to claims 9 and 20, a drip plate and an ink loader for a phase change printer (as applied to claims 1-3, 6-8, 12-19, 23, and 26-27 above).

Jones et al differs from the claimed invention in that it does not disclose:

- {claim 9} wherein the drip plate is made from plastic
- {claim 20} wherein at least one of the drip plate and the melt plate is made from plastic

Scheuhing discloses, with respect to claims 9 and 20, that using a plastic surface as a material in contact with ink facilitates cleaning of the surface.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Scheuhing into the invention of Jones et al, so that the metal drip plate of Jones et al is replaced with a plastic one. The motivation for the skilled artisan in doing so is to gain the benefit of facilitating the cleaning of the drip plate.

Claims 10 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al (US Pat 6530655) in view of Scheuhing (US Pat 5832835), as applied to claims 9 and 20 above and further in view of Gragg et al (US Pat 5467118).

Jones et al teaches all limitations of the claimed invention except for the following:

- {claims 10 and 21} the drip plate is injection molded

Gragg et al discloses, with respect to claims 10 and 21, injection molding is a simple and inexpensive way to treat plastic (column 2, lines 61-64).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Gragg et al into the invention of Jones et al. The motivation for the skilled artisan in doing so is to gain the benefit of saving money.

Allowable Subject Matter

Claims 5, 11, and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 5 discloses, "a bent flange extending upward from the upper side of the drip plate," which was not found, taught, or disclosed in the prior arts.

Claim 11 discloses, "wherein a heating element is molded into the drip plate," which was not found, taught, or disclosed in the prior arts.

Claim 25 discloses, "wherein the melt plate has two large cutout portions," which was not found, taught, or disclosed in the prior arts.

Response to Arguments

Applicant's arguments filed 02/23/06 have been fully considered but they are not persuasive.

The applicant argues that Jones et al teaches a lower portion that is always coplanar with the upper portion. The examiner refers the applicant's attention to column 6, lines 64-67, where it is clearly disclosed that a bottom of the drip plate is angled. This suggests that the lower portion is not coplanar with the upper portion.

However, the examiner is issuing a new non-final rejection because some of the claims that were previously objected to as being allowable are, upon further consideration, no longer considered to be so. The examiner feels that some of the previously objected claims were not given their broadest reasonable interpretation. For example, the examiner did not find any

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teaching that the drip plate was injection molded. However, the examiner did find teachings that the drip plate was made from plastic. The examiner previously forgot that injection molding is a well-know technique for manipulating plastic. It would have been inappropriate to allow a claim simply because of the teaching of "injection molding."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard S. Liang whose telephone number is (571) 272-2148. The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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5/15/06
MANISH S. SHAH
PRIMARY EXAMINER